

REMARKS

Claims 1 and 37-72 remain pending in the application. Claims 1, 37, 39, 43, 49-51, 54, 55, 57, 59, 60, and 70-72 have been amended. Reconsideration of the application is respectfully requested.

Claims 1, 37-40, 44-51, 54, 55, 57-59 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,481,262 to Urbas *et al.* ("Urbas"). Applicant would like to thank the Examiner for the comments provided in the Advisory Action on January 25, 2006, which comments helped Applicant to better understand the Examiner's position. In this Response, Applicant has amended various claims to further clarify the application.

Applicant respectfully submits that amended claim 1 distinguishes over Urbas. Urbas discloses a passive transponder that includes a receive antenna 4 and a transmit antenna 11. *See* Urbas, FIG. 2. Claim 1 has been amended to clarify that the invention as claimed in claim 1 utilizes a single antenna that is adapted to simultaneously receive and transmit. Support for this amendment can be found in the specification on at least p. 13, lns. 14-15. In addition, the invention as claimed in claim 1 includes a modulator that varies an impedance in order to provide the antenna with a dual Q factor. Claim 1 has been amended to more clearly reflect this distinguishing feature. Support for this claim amendment can be found in the specification on at least p. 4, lns. 9-10.

The Examiner asserts that there is a lack of detail surrounding the term "Q-factor" and that one skilled in the art may read the claims of the claimed invention and define the Q-factors in the claims in a similar manner as the "Q" referred to in Urbas. Applicant respectfully submits that Urbas uses Q to refer to a digital logic signal, where Q can either be a 1 or a 0 and that this is different than the way the term "Q-factor" is used in the specification of the present application. On p. 14 of the specification, the "Q" of Q-factor, as used in the claims, is defined

by an equation with variables including Capacitance, Resistance, and Impedance. At the bottom of p. 18, the "Q" for a specific embodiment is calculated to be 0.28, which is an analog value. This number (i.e., 0.28) is not a value that Urbas' Q could have, because Urbas' Q is a binary value (e.g., 1 or 0). Therefore, for at least the above reasons, claim 1 is believed distinguish over Urbas.

Independent claims 37, 49, 50, 57, and 59 have also been amended. Each recite, among other things, using a single antenna adapted for simultaneously receiving a first RF electromagnetic signal and transmitting a second RF electromagnetic signal. As stated previously in relation to claim 1, Applicant respectfully submits that Urbas does not teach or suggest these distinguishing features. For at least these reasons, claims 37, 49, 50, 57, 59, and their dependents are also deemed to distinguish over Urbas.

Independent claim 54 has also been amended. Claim 54 is directed to an antenna for simultaneously receiving and transmitting a first radiofrequency (RF) electromagnetic signal and a second RF electromagnetic signal respectively. The antenna includes a tuned coil in which the first signal generates a first current and which supports a second current for generating the second signal. The coil as claimed is provided with a dual Q factor. Applicant respectfully submits that Urbas fails to teach or suggest these distinguishing features. Therefore, for at least these reasons, independent claim 54 and its dependents are deemed to distinguish over Urbas.

Claims 41-43, 52, 53, 56, and 60-72 stand rejected as being unpatentable under 35 U.S.C. §103(a) over Urbas in view of U.S. Pat. No. 5,374,930 to Schuermann ("Schuermann"). As stated previously, Urbas fails to teach or suggest a single antenna for receiving a first RF signal and transmitting a second RF signal. Schuermann is similarly deficient, as Schuermann discloses a first antenna 28 for transmitting RF energy and a second antenna for receiving the RF energy. *See* Schuermann, col. 4, lns. 53-56.

Claim 60, as amended, recites "a single antenna adapted for simultaneously receiving a first radio frequency (RF) electromagnetic signal" and that "the antenna transmits a fourth RF electromagnetic signal." Therefore, because neither Urbas nor Schuermann, singly or in combination, discloses all the features of either claim 60 or claim 71, claims 60 and 71 and their respective dependents are deemed to distinguish over the combination of Urbas and Schuermann.

Claim 71 has been amended to clarify the use of a single antenna adapted for simultaneously receiving and transmitting RF electromagnetic signals. Amended claim 71 states "receiving the first signal with an antenna" and "the antenna transmitting the fourth signal." Therefore, because neither Urbas nor Schuermann, singly or in combination, discloses all the features of either claim 60 or claim 71, claims 60 and 71 and their respective dependents are deemed to distinguish over the combination of Urbas and Schuermann.

Independent claims 70 and 72 were also rejected as being obvious over Urbas in view of Schuermann. These claims have been amended to clarify that a single coil both receives and transmits. Claim 70 is directed to a tuned antenna including a coil adapted for "receiving a first radio frequency (RF) electromagnetic signal" and "transmitting a fourth RF electromagnetic signal." Claim 72 is directed to a method for receiving and transmitting RF signals comprising receiving the first signal in a single coil and then transmitting a fourth signal via the same coil. Neither Urbas et al. nor Schuermann discloses these distinguishing features. As stated previously, Urbas et al. discloses two antennas. Similarly, Schuermann discloses two coils 30 and 36. Therefore, for at least this reason, claims 70 and 72 are deemed to distinguish over the combination of Urbas et al. and Schuermann.

Claims 41, 52, and 56 were also rejected as being obvious over Urbas in view of Schuermann. Each of claims 41-43, 52, 53 and 56 ultimately depends from one of independent

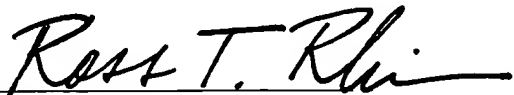
claims 37, 50, and 54. Independent claims 37 and 50, as amended, each recite, among other things, a single antenna that receives a first RF signal and transmits a second RF signal. Because claims 41-43, 52, and 53 ultimately depend from one of claims 37 and 50, claims 41-43, 52, and 53 include this feature. As stated above, neither Urbas nor Schuermann teaches or suggests these distinguishing features. For at least this reason, claims 41 and 52 are deemed to distinguish over the combination of Urbas and Schuermann.

Independent claim 54, as amended, is directed at an antenna adapted for simultaneously receiving and transmitting RF signals and further includes the feature that the tuned coil is provided with a simultaneous dual Q factor that is high for the first current and low for the second current. Because claim 56 ultimately depends from claim 54, it also includes these features. As stated previously with respect to claim 54, neither Urbas nor Schuermann teaches or suggests these features. For at least these reasons, claim 56 is deemed to distinguish over the combination of Urbas and Schuermann.

In view of the above, each of the presently-pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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